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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,451	07/08/2003	Colin Regan	012861-000021	7987

7590 12/20/2005

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EXAMINER

VERDIER, CHRISTOPHER M

ART UNIT PAPER NUMBER

3745

DATE MAILED: 12/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/615,451	REGAN ET AL.	
	Examiner	Art Unit	
	Christopher Verdier	3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10-5-05, 12-2-05, 12-8-05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13, 16-19 and 21-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19, 21, 27/19, 27/21, 28 is/are allowed.
- 6) ☒ Claim(s) See Continuation Sheet is/are rejected.
- 7) ☒ Claim(s) 3, 5-6, 11/3, 11/5, 11/6, 17-18, 23, 25, 26, 27/23, 27/25, 27/26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7-8-03, 10-5-05 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12-2-05, 12-8-05</u> . | 6) <input type="checkbox"/> Other: _____ |

Applicants' Amendment dated October 5, 2005 has been carefully considered but is non-persuasive. The Replacement Sheets of drawings are approved by the examiner. The specification has been amended to correct the informalities set forth in the previous Office action. The claims have been amended to adopt the examiner's suggested claim language, and to overcome the rejections under 35 USC 112, second paragraph. Correction of the above matters is noted with appreciation.

With regard to the objection to the specification as failing to provide antecedent basis for the limitations in claim 8, applicant has amended the paragraph of specification on page 10, lines 3-11 to state that the elevation is adjusted by means of the chain 66 and pulley 67. This amendment is appreciated, but the specification still does not contain antecedent basis for the phrase "means for adjusting the elevation of said turbine", which invokes 35 USC 112, sixth paragraph. Applicant has not commented on the objection to the specification as failing to provide antecedent basis for the limitations in claim 17, of the length of the blades varying substantially smoothly from a minimum length for those ones of the blades positioned towards the opposed ends of the rotor to a maximum length for at least one of the blades positioned intermediate the opposed ends, for the above underlined limitation.

Applicants' argument (see page 16, lines 2-3 of Applicants' Remarks dated October 5, 2005) that Frey 3,923,416 does not disclose that the wires 12 have flexibility, has been carefully considered and is persuasive. However, water turbine blades that are relatively narrow, flexible elongated blades are taught by Dipnall 5,937,644, as set forth later below. Additionally, the

Art Unit: 3745

indicated allowability of claim 16 is withdrawn in view of the newly discovered reference to Dipnall. Rejections based on the newly cited reference(s) follow.

Information Disclosure Statement

Applicants' Supplemental Information Disclosure Statement (IDS) of December 8, 2005 listing the English abstract for DE 40266838 is acknowledged. This reference has been crossed out, because this reference is listed under the "Foreign Patent Documents" section and should have been listed under an "Other Publications" section. However, as indicated by the initialed copy of the IDS of December 2, 2005, this reference has been fully considered.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

Claim 8, which recites "means for adjusting the elevation of said turbine relative to said platform", which invokes 35 USC 112, sixth paragraph, has no antecedent basis in the specification.

Claim 17, which recites the length of the blades varying substantially smoothly from a minimum length for those ones of the blades positioned towards the opposed ends of the rotor to

Art Unit: 3745

a maximum length for at least one of the blades positioned intermediate the opposed ends, has no antecedent basis in the specification for the above underlined limitation.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 16 is rejected under 35 U.S.C. 102(b) as being anticipated by Dipnall 5,937,644.

Dipnall (figures 1-5) discloses a water turbine 1, comprising a turbine rotor 14 longitudinally extending between opposed ends of the rotor, a plurality of relatively narrow, flexible elongated combined turbine blades 7/12 (see column 5, lines 14-16 and column 6, lines 5-8) extending outwardly from the rotor for communication with a water current, with the blades being arranged in circumferentially spaced rows extending along the rotor, with each of the rows of blades being distanced from each other in succession by a space, and with the rows being staggered such that the blades in a given one of the rows circumferentially align with spaces between blades in a row immediately circumferentially forward of the given row and with the spaces between blades in a row immediately circumferentially rearward of the given row (see figure 5).

Art Unit: 3745

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 4, 10, 11/1, 11/4, 11/10, 22, 24, 27/22, and 27/24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent 58-104,370 in view of Dipnall 5,937,644. The Japanese patent discloses an apparatus for generating power from a water current in a body of water substantially as claimed, comprising a longitudinally extending flotation platform 3A and 3B for maintaining the apparatus afloat in the body of water, with the platform comprising a forward part (adjacent 7 in figure 1) having opposed diverging sides 8 extending outwardly and rearwardly from a forward end apex (at 7) to first and second elongated rearward parts 3A, 3B, with the first rearward part extending longitudinally rearwardly from the forward part to a distal end of the first rearward part, with the second rearward part extending longitudinally rearwardly

Art Unit: 3745

from the forward part substantially parallel to the first rearward part to a distal end of the second rearward part, and an unnumbered longitudinal opening extending downwardly through the platform between the first and second parts, and a water turbine 2 carried by the platform for generating power in response to the water current, with the turbine comprising a turbine rotor 2A longitudinally extending transversely across the opening between opposed ends of the rotor, with the rotor rotatably mounted to the platform for rotation about a rotor axis, and plural unnumbered turbine blades extending outwardly from the rotor for operative communication with the water current through the downward opening. A deflector 5, 6 is mounted to the platform at the forward end for deflecting debris floating in the body of water. The opening is laterally bounded by unnumbered opposed downwardly and longitudinally extending inner side walls for channeling water current communicating with the blades. The first rearward part extends longitudinally rearwardly from the forward part to a first distal end, and the second rearward part extends longitudinally rearwardly from the forward part substantially parallel to the first rearward part to a second distal end. Also disclosed is a method of generating power from the water current, comprising providing a first power generation station, floating the station in the body of water with the forward end apex directed upstream in the water current, and controllably restraining downstream movement of the platform, via elements 5, 6.

However, the Japanese Patent 58-104,370 does not disclose that the turbine blades are a plurality of relatively narrow, flexible elongated turbine blades arranged in circumferentially spaced rows extending along the rotor, with the blades in each of the rows being distanced from each other in succession by a space (claims 1 and 22), and does not disclose that the rows are

Art Unit: 3745

staggered such that the blades in a given one of the rows circumferentially align with spaces between blades in a row immediately circumferentially forward of the given row and with the spaces between blades in a row immediately circumferentially rearward of the given row (claims 4 and 24).

Dipnall (figures 1-5) shows a water turbine 1, comprising a turbine rotor 14 longitudinally extending between opposed ends of the rotor, a plurality of relatively narrow, flexible elongated combined turbine blades 7/12 (see column 5, lines 14-16 and column 6, lines 5-8) extending outwardly from the rotor for communication with a water current, with the blades being arranged in circumferentially spaced rows extending along the rotor, with each of the rows of blades being distanced from each other in succession by a space, and with the rows being staggered such that the blades in a given one of the rows circumferentially align with spaces between blades in a row immediately circumferentially forward of the given row and with the spaces between blades in a row immediately circumferentially rearward of the given row (see figure 5), for the purpose of producing additional torque on the rotor by virtue of the flexibility, thus allowing capture of a higher percentage of kinetic energy contained in the water.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to form the rotor of the Japanese Patent such that the turbine blades are a plurality of relatively narrow, flexible elongated turbine blades arranged in circumferentially spaced rows extending along the rotor, with the blades in each of the rows being distanced from each other in succession by a space, with the rows being staggered such that the blades in a given

Art Unit: 3745

one of the rows circumferentially align with spaces between blades in a row immediately circumferentially forward of the given row and with the spaces between blades in a row immediately circumferentially rearward of the given, as taught by Dipnall.

Claims 1, 4, 7-8, 11/1, 11/4, 11/7, 11/8, 22, 24, 27/22, and 27/24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dawson 867,192 in view of Dipnall 5,937,644.

Dawson discloses an apparatus for generating power from a water current in a body of water substantially as claimed, comprising a longitudinally extending flotation platform shown generally at 1 for maintaining the apparatus afloat in the body of water, with the platform comprising a forward part 37 having opposed diverging sides 38, 38 extending outwardly and rearwardly from a forward end apex (at the tip of 37) to first and second elongated rearward parts 1, 1 with the first rearward part extending longitudinally rearwardly from the forward part, with the second rearward part extending longitudinally rearwardly from the forward part substantially parallel to the first rearward part, and an unnumbered longitudinal opening extending downwardly through the platform between the first and second parts, and a water turbine 34 carried by the platform for generating power in response to the water current, with the turbine comprising a turbine rotor 32 longitudinally extending transversely across the opening between opposed ends of the rotor, with the rotor rotatably mounted to the platform for rotation about a rotor axis, and plural unnumbered turbine blades extending outwardly from the rotor for operative communication with the water current through the downward opening. The opening is laterally bounded by unnumbered opposed downwardly and longitudinally extending inner side walls for channeling water current communicating with the blades. The turbine is carried by the

Art Unit: 3745

platform at an adjustable elevation in relation to the platform via elements 5, 7, and hydraulic jacks 13. The language in claim 8 invokes 35 USC 112, sixth paragraph. Jacks 13 are means for adjusting the elevation of the turbine relative to the platform. Jacks 13 perform the identical function specified in the claim, no explicit definition in the applicant's specification excludes jacks 13 as an equivalent, and the jacks 13 perform the same function in substantially the same way and produce substantially the same result, and are therefore considered to be an equivalent to applicant's elevation mechanism 60, 65. The first rearward part extends longitudinally rearwardly from the forward part to a first distal end, and the second rearward part extends longitudinally rearwardly from the forward part substantially parallel to the first rearward part to a second distal end. Also disclosed is a method of generating power from the water current, comprising providing a first power generation station, floating the station in the body of water with the forward end apex directed upstream in the water current, and controllably restraining downstream movement of the platform, via cables 63.

However, Dawson does not disclose that the turbine blades are a plurality of relatively narrow, flexible elongated turbine blades arranged in circumferentially spaced rows extending along the rotor, with the blades in each of the rows being distanced from each other in succession by a space (claims 1 and 22), and does not disclose that the rows are staggered such that the blades in a given one of the rows circumferentially align with spaces between blades in a row immediately circumferentially forward of the given row and with the spaces between blades in a row immediately circumferentially rearward of the given row (claims 4 and 24).

Art Unit: 3745

Dipnall (figures 1-5) shows a water turbine 1, comprising a turbine rotor 14 longitudinally extending between opposed ends of the rotor, a plurality of relatively narrow, flexible elongated combined turbine blades 7/12 (see column 5, lines 14-16 and column 6, lines 5-8) extending outwardly from the rotor for communication with a water current, with the blades being arranged in circumferentially spaced rows extending along the rotor, with each of the rows of blades being distanced from each other in succession by a space, and with the rows being staggered such that the blades in a given one of the rows circumferentially align with spaces between blades in a row immediately circumferentially forward of the given row and with the spaces between blades in a row immediately circumferentially rearward of the given row (see figure 5), for the purpose of producing additional torque on the rotor by virtue of the flexibility, thus allowing capture of a higher percentage of kinetic energy contained in the water.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to form the rotor of Dawson such that the turbine blades are a plurality of relatively narrow, flexible elongated turbine blades arranged in circumferentially spaced rows extending along the rotor, with the blades in each of the rows being distanced from each other in succession by a space, with the rows being staggered such that the blades in a given one of the rows circumferentially align with spaces between blades in a row immediately circumferentially forward of the given row and with the spaces between blades in a row immediately circumferentially rearward of the given, as taught by Dipnall.

Art Unit: 3745

Claims 1, 4, 11/1, 11/4, and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garrison 385,261 in view of Dipnall 5,937,644. Garrison 385,261 (figures 3-5) discloses an apparatus for generating power from a water current in a body of water substantially as claimed, comprising a longitudinally extending flotation platform shown generally at A for maintaining the apparatus afloat in the body of water, with the platform comprising a forward part (to the right in figure 4) having opposed unnumbered diverging sides extending outwardly and rearwardly from a forward end apex (at the tip of the right forward part in figure 4) to first and second unnumbered elongated rearward parts, with the first rearward part extending longitudinally rearwardly from the forward part, with the second rearward part extending longitudinally rearwardly from the forward part substantially parallel to the first rearward part, and an unnumbered longitudinal opening extending downwardly through the platform between the first and second parts, and a water turbine G' carried by the platform for generating power in response to the water current, with the turbine comprising an unnumbered turbine rotor longitudinally extending transversely across the opening between opposed ends of the rotor, with the rotor rotatably mounted to the platform for rotation about a rotor axis, and plural unnumbered turbine blades extending outwardly from the rotor for operative communication with the water current through the downward opening. The opening is laterally bounded by unnumbered opposed downwardly and longitudinally extending inner side walls for channeling water current communicating with the blades. The first rearward part extends longitudinally rearwardly from the forward part to a first distal end, and the second rearward part extends longitudinally rearwardly from the forward part substantially parallel to the first rearward part to a second distal end. Also disclosed is a method of generating power from the

Art Unit: 3745

water current, comprising providing a first power generation station, floating the station in the body of water with the forward end apex directed upstream in the water current, and controllably restraining downstream movement of the platform, via cable C. Concerning claims 12-13, the platform has an unnumbered third elongated rearward part (between turbines G' in figure 4) positioned between the first and second rearward parts and extending longitudinally rearward from the forward part substantially parallel to the first and second rearward parts, and first and second unnumbered longitudinal openings (carrying turbines G'), with the first longitudinal opening extending downwardly through the platform between the first and third rearward parts, and the second longitudinal opening extending downwardly through the platform between the second and third rearward parts, with first and second water turbines G' carried by the platform for generating power in response to the water current in the body of water. Each turbine comprises an associated unnumbered turbine rotor rotatably mounted to the platform and plural unnumbered associated turbine blades. The recitation in claim 12, lines 20-21 of "for rotation about an associated rotor axis" is a recitation of intended use and does not explicitly require that the turbines have separate rotor axes; a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963). The rotor of the first water turbine extends transversely across the first opening and the rotor of the second water turbine extends transversely across the

Art Unit: 3745

second opening. The first downward opening is laterally bounded by opposed downwardly and longitudinally extending inner sidewalls for channeling water current communicating with the blades of the first water turbine, and the second downward opening is laterally bounded by opposed downwardly and longitudinally extending inner sidewalls for channeling water current communicating with the blades of the second water turbine. The first and second distal ends each have an angle of taper which conforms with the angle of taper at which the diverging sides of the forward part of the platform extend rearwardly from the forward end apex of the platform.

However, Garrison does not disclose that the turbine blades associated with the first and second turbines are a plurality of relatively narrow, flexible elongated turbine blades arranged in circumferentially spaced rows extending along the rotor, with the blades in each of the rows being distanced from each other in succession by a space (claims 1 and 12), and does not disclose that the rows are staggered such that the blades in a given one of the rows circumferentially align with spaces between blades in a row immediately circumferentially forward of the given row and with the spaces between blades in a row immediately circumferentially rearward of the given row (claim 4).

Dipnall (figures 1-5) shows a water turbine 1, comprising a turbine rotor 14 longitudinally extending between opposed ends of the rotor, a plurality of relatively narrow, flexible elongated combined turbine blades 7/12 (see column 5, lines 14-16 and column 6, lines 5-8) extending outwardly from the rotor for communication with a water current, with the blades being arranged in circumferentially spaced rows extending along the rotor, with each of the rows

Art Unit: 3745

of blades being distanced from each other in succession by a space, and with the rows being staggered such that the blades in a given one of the rows circumferentially align with spaces between blades in a row immediately circumferentially forward of the given row and with the spaces between blades in a row immediately circumferentially rearward of the given row (see figure 5), for the purpose of producing additional torque on the rotor by virtue of the flexibility, thus allowing capture of a higher percentage of kinetic energy contained in the water.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to form the first and second turbines rotor of Garrison such that the turbine blades of the first and second turbines are a plurality of relatively narrow, flexible elongated turbine blades arranged in circumferentially spaced rows extending along the rotor, with the blades in each of the rows being distanced from each other in succession by a space, with the rows being staggered such that the blades in a given one of the rows circumferentially align with spaces between blades in a row immediately circumferentially forward of the given row and with the spaces between blades in a row immediately circumferentially rearward of the given, as taught by Dipnall.

Claims 9 and 11/9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dawson 867,192 and Dipnall 5,937,644 as applied to claim 1 above, and further in view of Weisenborn 1,396,609. The modified apparatus for generating power of Dawson shows all of the claimed subject matter as set forth above, including cables 63 connected to a pier 61 for restraining downstream movement of the platform, but does not show a winch mounted on the

Art Unit: 3745

platform and a mooring cable reelably wound on the winch, with the cable attachable to an anchorage for restraining downstream movement of the platform.

Weisenborn shows a current motor with a platform 10-16, having a winch 17 mounted on the platform and a mooring cable reelably wound on the winch, with the cable attachable to an anchorage, for the purpose of restraining downstream movement of the platform.

It would have been further obvious at the time the invention was made to a person having ordinary skill in the art to replace the cables of the modified apparatus of Dawson with a winch mounted on the platform and a mooring cable reelably wound on the winch, with the cable attachable to an anchorage, as taught by Weisenborn, for the purpose of restraining downstream movement of the platform.

Claims 10 and 11/10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garrison 385,261 and Dipnall 5,937,644 as applied to claim 1 above, and further in view of Wiggs 4,590,386. The modified apparatus for generating power of Garrison shows all of the claimed subject matter as set forth above, including a platform A having a forward end, but does not show a deflector mounted to the platform at the forward end for deflecting debris floating in the body of water.

Art Unit: 3745

Wiggs (figure 1) shows a water turbine having a platform 1 with a deflector 5 fastened to the platform at a forward end, for the purpose of providing protection of the water turbine from debris.

It would have been further obvious at the time the invention was made to a person having ordinary skill in the art to provide the modified water turbine apparatus of Garrison with a deflector mounted to the platform at the forward end, as taught by Wiggs, for the purpose of providing protection of the water turbine from debris.

Allowable Subject Matter

Claims 19, 21, 27/19, 27/21, and 28 are allowed.

Claims 3, 5, 6, 11/3, 11/5, 11/6, 17-18, 23, 25-26, 27/23, 27/25, and 27/26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Verdier whose telephone number is (571) 272-4824. The examiner can normally be reached on Monday-Friday from 10:00-6:30.

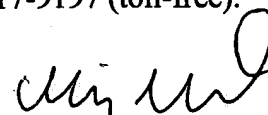
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward K. Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3745

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C.V.

December 20, 2005



Christopher Verdier
Primary Examiner
Art Unit 3745

Continuation of Disposition of Claims: Claims rejected are 1, 4, 7-10, 11/1, 11/4, 11/7, 11/8, 11/9, 11/10, 12-13, 16, 22, 24, 27/22, 27/24 .



Approved for use through 07/31/2008. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known

Application Number	10/615,451
Filing Date	July 8, 2003
First Named Inventor	Colin Regan
Art Unit	3745
Examiner Name	Christopher M. Verdier
Attorney Docket Number	012861-000021

Sheet	1	of	1
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U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ² -Number ⁴ -Kind Code ⁵ (if known)				
W	B1	DE 3408959 A1	09/12/1985	Schoepflin		X
W	B2	EP 0 045 353	02/10/1982	Martinez		X
W	B3	DE 4112730 A1	08/27/1992	Riedel		X
W	B4	DE 4026638 A1	02/27/1992	Gondolf		

**Examiner
Signature**

verdier

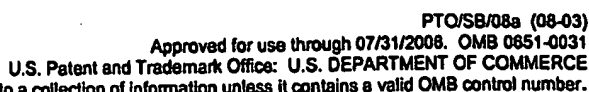
Date Considered

12-20-05

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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				Application Number	10/615,451
				Filing Date	July 8, 2003
				First Named Inventor	Colin Regan
				Art Unit	3745
				Examiner Name	Christopher M. Verdler
				Attorney Docket Number	012861-000021
Sheet	1	of	1		

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FOREIGN PATENT DOCUMENTS						
Examiner Initials'	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ²
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
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Notice of References Cited	Application/Control No. 10/615,451	Applicant(s)/Patent Under Reexamination REGAN ET AL.	
	Examiner Christopher Verdier	Art Unit 3745	Page 1 of 1

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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-5,937,644 A	08-1999	Dipnall	416/240
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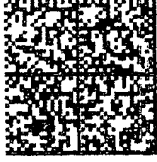
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